

Remarks/Arguments:

Claims 1-14 were pending at the time of the Office Action, with claims 8-10 having been withdrawn. Claims 1, 5 and 14 are canceled herewith, and new claims 15-19 are introduced. Support for the claims 15-19 can be found in the application on page 5 at lines 14-18 and in claim 4 as filed.

Claim 11 is amended herewith to clarify that the invention requires contacting a copper surface with a cleaning solution that contains a corrosion inhibitor, and subsequently rinsing off the cleaning solution. The completeness of corrosion inhibitor removal as a result of the rinsing is gauged by exposing the cleaned plate to an indicating reactant such as H₂S. Applicant submits that the rejections in the Office Action are rendered moot in view of the amendments, as will now be explained.

35 U.S.C. § 102 and 103

Claims 1-3, 5-6 and 11-14 are rejected under 35 U.S.C. §102(b) as anticipated by, or in the alternative, unpatentable over, Lapluye et al. (U.S. 5,156,892, "Lapluye"). Lapluye is directed to corrosion inhibiting compositions and methods of using them. Lapluye applies his corrosion inhibitor to a copper substrate. Apparently to assure good coverage and/or adhesion of the corrosion inhibitor on the metal, Lapluye sometimes "if necessary" scours the metal surface with a series of cleaning reagents. None of the cleaning agents includes a corrosion inhibitor, and he rinses the cleaning agents off before applying the corrosion inhibitor. Even after subsequent rinsing, the corrosion inhibitor remains in place, as indicated by reduced reactivity toward H₂S compared with an untreated plate. See Lapluye col. 2 at lines 54-64 and col. 3 lines 15-23.

Lapluye does not teach the claim element that recites a visible color change within a predetermined time, indicating that any residual corrosion inhibitor left on the copper surface after a cleaning step that includes the inhibitor has been removed. In all cases, application of Lapluye's corrosion inhibitor results in a surface that does NOT form a visible color change within a predetermined time, thus indicating that significant corrosion inhibitor has been retained.

To arrive at the present invention, one would at least have to modify the teaching of Lapluye to treat a copper surface with a corrosion inhibitor in a such way that the resulting surface showed a visible color change as defined, and that would require removing the corrosion inhibitor. However, one could not possibly have any reason to do this because it

would defeat the very purpose of Lapluye's invention, which is to retain corrosion inhibitor. "If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

In *KSR v. Teleflex*, the Court held that "a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions." *KSR Int'l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007) (slip op. at 13, emphasis added). Further, the court must "determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." (slip op. at 14, emphasis added). The established function of exposing a copper surface to an indicating reactant such as H₂S is, according to Lapluye, to ensure the presence of an effective amount of a corrosion inhibitor. The person of ordinary skill, reading Lapluye, would find no apparent reason to use the indicating reactant to ensure the absence of corrosion inhibitor.

For these reasons, it is clear that the Office Action does not provide a reason as to why the person of ordinary skill would modify Lapluye in the manner necessary to arrive at the present invention. Because the Office Action has provided neither a teaching of this claim element nor a reason to modify the Lapluye reference to provide it, the claims are neither anticipated nor *prima facie* obvious. Accordingly, the rejections should be withdrawn.

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Claims 2-4, 6, 7, 11-13 and 15-18 are pending. Because claim 11 is the only independent claim, and it is allowable as noted above, all claims which depend from it are also allowable for at least the reasons it is allowable. A notice of allowance of claims 2-4, 6, 7, 11-13, and 15-18 is therefore respectfully requested.

Respectfully submitted,



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